

disturbing the protected tissue and cells. The method allows a cost effective production of all manner of heterologous proteins in their respective active form under standardizable conditions.

IN THE CLAIMS:

Kindly amend claims 1-6 (as amended under Article 34 (2)(b) in the corresponding international application), and replace them with the following:

1. (Unchanged) A method for the production of heterologous proteinaceous substances in plant material, characterized in that protonema moss tissue is used as plant material and that the proteinaceous substances produced are obtained from the culture medium without disrupting the producing tissues or cells.

2. (Unchanged) The method according to claim 1, characterized in that the proteinaceous substance released into the culture medium is biologically active.

3. (Amended) The method according to claim 1, characterized in that a culture medium is used which is free from sugars, vitamins and phytohormones or functional fragments thereof.

4. (Amended) The method according to claim 1, characterized in that the moss tissue is selected from the group of the mosses including liverworts.

5. (Unchanged) The method according to claim 4, characterized in that the moss tissue is selected from mosses of the group consisting of *Physcomitrella*, *Funaria*, *Sphagnum* and *Ceratodon*.

6. (Unchanged) The method according to claim 4, characterized in that the moss tissue is selected from liverworts of the group consisting of *Marchantia* and *Sphaerocarpos*.

Kindly add the following new claims:

7. (New) The method according to claim 2, characterized in that a culture medium is used which is free from sugars, vitamins and phytohormones or functional fragments thereof.

8. (New) The method according to claim 2, characterized in that the moss tissue is selected from the group of the mosses including liverworts.

9. (New) The method according to claim 3, characterized in that the moss tissue is selected from the group of the mosses including liverworts.

10. (New) The method according to claim 7, characterized in that the moss tissue is selected from the group of the mosses including liverworts.

11. (New) The method according to claim 2, characterized in that the moss tissue is selected from mosses of the group consisting of *Physcomitrella*, *Funaria*, *Sphagnum* and *Ceratodon*.

12. (New) The method according to claim 3, characterized in that the moss tissue is selected from mosses of the group consisting of *Physcomitrella*, *Funaria*, *Sphagnum* and *Ceratodon*.

13. (New) The method according to claim 7, characterized in that the moss tissue is selected from mosses of the group consisting of *Physcomitrella*, *Funaria*, *Sphagnum* and *Ceratodon*.

14. (New) The method according to claim 2, characterized in that the moss tissue is selected from liverworts of the group consisting of *Marchantia* and *Sphaerocarpos*.

15. (New) The method according to claim 3, characterized in that the moss tissue is selected from liverworts of the group consisting of *Marchantia* and *Sphaerocarpos*.

16. (New) The method according to claim 7, characterized in that the moss tissue is selected from liverworts of the group consisting of *Marchantia* and *Sphaerocarpos*.

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